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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,951	03/01/2002	Shui-Ching Hsu	MR929-750	8289

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EXAMINER

HANNAHER, CONSTANTINE

ART UNIT PAPER NUMBER

2878

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,951

Applicant(s)

HSU, SHUI-CHING

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Oath/Declaration

1. When applicant states that the post office address is the "same" as residence applicant's representative should keep in mind that a "residence" is a city and state or foreign country. The superfluous information given for residence is accepted as constituting a mailing address. Whether the Office has been able to discern the city and state or foreign country of residence from the information supplied is not known. See the requirements of 37 CFR 1.63(c)(1) as amended effective November 7, 2000.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "50" has been used to designate both the power switch circuit and the output conversion circuit. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the use of "The present invention is..." a phrase which can be implied.

Claim Objections

4. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 establishes the power switch circuit as *connected* in series to the push-button switch and the battery, and it does not further limit the claim to permit, as claim 4 does, the power switch circuit to be *formed* by those elements.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 4, 7, 10, and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe a connection *in series* to elements *in parallel*. As Fig. 3 shows, the push-button switch **SW1** and the battery **3V** are connected in parallel to the resistor **R10** and Zener diode **D3** which themselves are in series. The balance of the claims is rejected on the basis of their dependence.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2-4, 7, 10, 13, 6, 9, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the printed circuit board of the detector" in line 2 (actual count). There is insufficient antecedent basis for this limitation in the claim. The printed circuit board is established for the output conversion circuit and there is no requirement for the light detector to have any necessary physical relationship thereto. The use of the indefinite article to recite the battery, output conversion circuit, light detector, and display module raises the question as to how the control circuit relates to such elements of the same name established in claim 1. Note also that if claim 1 requires *multiple* batteries at line 12 (actual count) and the control circuit of claim 2 is composed of a battery so established, claim 2 does not further limit claim 1 by referring to "a" battery in the singular.

Claim 3 recites the limitation "the light detector formed by a photo resistor" in line 5 (actual count). There is insufficient antecedent basis for this limitation in the claim. No such light detector is established by a previous claim.

The balance of the claims is rejected on the basis of their dependence.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over May (US005382799A).

With respect to independent claim 1, May discloses a portable UV detector (column 1, lines 8-9) comprising a cylindrical main body (column 3, line 9), a filtering lens 29 (column 3, line 59), a

display panel window **14**, an output conversion circuit **39**, and a battery **44**. In view of the size and shape of a flashlight as disclosed by May, the presence of a hollow core running through both ends may be presumed, and a screw plug is suggested by the illustration at the end opposite that with the measurement head **12** in a manner known from, for example, the Mag-lite brand of flashlight. The input terminal of signal conditioning circuit **39** is connected to a light detector **38** located underneath the filtering lens (Fig. 2, with projection **32** housing detector) and the output terminal of signal conditioning circuit **39** is connected to a display module **43** (Fig. 3) mounted in the display panel window (Fig. 1B). Since the portable detector is battery powered according to the disclosure of May, the housing of battery **44** within a chamber behind the screw plug of the cylindrical main body is assured. The choice of the *number* of batteries is one entirely within the ordinary skill in the art at the time the invention was made in view of the power requirements of the enclosed circuitry and the desired performance in the field. While Fig. 3 is schematic, the placement of output conversion circuit on printed circuit board **31** or another printed circuit board is a choice entirely within the ordinary skill in the art at the time the invention was made in view of the size of the circuit and the desired performance.

With respect to dependent claim 2, the portable UV detector of May further comprises a push-button switch **13** to control activation/deactivation of the circuit illustrated in Fig. 3 with the recited components (battery **44**, output conversion circuit **39**, light detector **38**, and display module **43**).

With respect to dependent claim 11, the display module **43** in the portable UV detector of May has a numeric display (Fig. 1B).

11. Claims 3, 4, 13, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over May (US005382799A) as applied to claim 1 above, and further in view of Leber *et al.* (US04704535A).

With respect to dependent claim 3, the signal conditioning circuit **39** in the portable UV detector of May is illustrated schematically. May does, however, disclose a power switch circuit **45** connected in series to the push-button switch (as represented by element **46** in Fig. 3) and the battery **44** to control the operating voltage to detector elements in the manner recited (column 4, lines 44-55). The choice of circuitry for the signal conditioning circuit is therefore within the ordinary skill in the art. Leber *et al.* discloses a portable UV detector (Fig. 1) and shows (Fig. 4) that a light detection circuit composed of multiple resistors **140**, **141**, **142** to form a voltage divider circuit (column 6, line 36) and also connected to the light detector **110** and a comparator circuit formed from multiple comparators **134**, **136** is known. In view of the effective performance in the operation of the circuit of Leber *et al.*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portable UV detector of May to specify that signal conditioning circuit **39** comprised a circuit as suggested by Leber *et al.* To the extent this claim requires that the light detector be a photo resistor, the choice of light detector type is within the ordinary skill in the art in view of the desired performance, power consumption, and the like.

With respect to dependent claim 4, to the extent understood, the power switch circuit **45** in the portable UV detector of May is illustrated schematically. The choice of circuitry for the power switch circuit is therefore within the ordinary skill in the art. Leber *et al.* shows (Fig. 5) that the provision of a resistor **174** and a Zener diode **176** (column 7, line 33) in series, connected in parallel to the opposite ends (potential source **172** and ground **168**) of a push-button switch **208** and battery **206** connected in series, is known in the art of portable UV detectors. In view of the effective performance in the operation of the circuit of Leber *et al.*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portable UV detector of May to specify that power switch circuit **45** comprised a circuit as suggested by Leber *et al.*

With respect to dependent claim 13, the display module **43** in the portable UV detector of May has a numeric display (Fig. **1B**).

With respect to dependent claim 12, the display module **43** in the portable UV detector of May has a numeric display (Fig. **1B**).

12. Claims 7, 10, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over May (US005382799A) and Leber *et al.* (US004704535A) as applied to claims 4 and 3 above, and further in view of Gershteyn *et al.* (US006348694B1).

With respect to dependent claim 7, although the display module **43** in the portable UV detector of May is illustrated (Fig. **1B**) as a numerical display, Gershteyn *et al.* discloses (column 10, lines 51-59) that a graphical display was a known equivalent to a numerical display in the art of portable UV detectors. No motivation is necessary for one of ordinary skill in the art to substitute one known equivalent for another. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portable UV detector of May to have display module **43** have a graphical display.

With respect to dependent claim 10, with any of the display options suggested by Gershteyn *et al.* it would have taken no more than ordinary skill in the art at the time the invention was made to supply auxiliary information of a fixed nature adjacent to the display module **43** of May such that the necessity of operating the display to show such auxiliary information of a fixed nature was reduced. Given that May and Gershteyn *et al.* discloses portable UV detectors, the supply of a "UV level scale" would have been obvious, especially in view of the bar-type graphs identified by Gershteyn *et al.* How the auxiliary information is supplied, as by printing or application of an adhesive label and the like, is a choice within the ordinary skill in the art in view of the relative expenses, durability, and legibility.

With respect to dependent claim 6, although the display module **43** in the portable UV detector of May is illustrated (Fig. **1B**) as a numerical display, Gershteyn *et al.* discloses (column 10, lines 51-59) that a graphical display was a known equivalent to a numerical display in the art of portable UV detectors. No motivation is necessary for one of ordinary skill in the art to substitute one known equivalent for another. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portable UV detector of May to have display module **43** have a graphical display.

With respect to dependent claim 9, with any of the display options suggested by Gershteyn *et al.* it would have taken no more than ordinary skill in the art at the time the invention was made to supply auxiliary information of a fixed nature adjacent to the display module **43** of May such that the necessity of operating the display to show such auxiliary information of a fixed nature was reduced. Given that May and Gershteyn *et al.* discloses portable UV detectors, the supply of a "UV level scale" would have been obvious, especially in view of the bar-type graphs identified by Gershteyn *et al.* How the auxiliary information is supplied, as by printing or application of an adhesive label and the like, is a choice within the ordinary skill in the art in view of the relative expenses, durability, and legibility.

13. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over May (US005382799A) as applied to claim 1 above, and further in view of Gershteyn *et al.* (US006348694B1).

With respect to dependent claim 5, although the display module **43** in the portable UV detector of May is illustrated (Fig. **1B**) as a numerical display, Gershteyn *et al.* discloses (column 10, lines 51-59) that a graphical display was a known equivalent to a numerical display in the art of portable UV detectors. No motivation is necessary for one of ordinary skill in the art to substitute

one known equivalent for another. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the portable UV detector of May to have display module 43 have a graphical display.

With respect to dependent claim 8, with any of the display options suggested by Gershteyn *et al.* it would have taken no more than ordinary skill in the art at the time the invention was made to supply auxiliary information of a fixed nature adjacent to the display module 43 of May such that the necessity of operating the display to show such auxiliary information of a fixed nature was reduced. Given that May and Gershteyn *et al.* discloses portable UV detectors, the supply of a "UV level scale" would have been obvious, especially in view of the bar-type graphs identified by Gershteyn *et al.* How the auxiliary information is supplied, as by printing or application of an adhesive label and the like, is a choice within the ordinary skill in the art in view of the relative expenses, durability, and legibility.

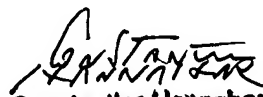
Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (703) 308-4850. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ch


Constantine Hannaher
Primary Examiner